

**PROJECT DESCRIPTION**

**I. GENERAL**

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING HAZARD IDENTIFICATION BEACONS (HIB) AND PEDESTRIAN PUSHBUTTONS ALONG SOUTHBOUND MD 390 (16TH STREET) AT SUBURBAN TOWER APARTMENTS IN MONTGOMERY COUNTY. THE MODIFICATION INVOLVES UPGRADING THE EXISTING PUSHBUTTONS TO AUDIBLE-TACTILE PUSHBUTTONS AND THE EXISTING SIGNAL HEADS TO LED. ALL ASSOCIATED SIGNS WILL ALSO BE UPGRADED TO CURRENT STANDARD. MD 390 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

**II. INTERSECTION OPERATION**

- THE HIB IS ACTIVATED BY PEDESTRIANS PUSHING THE AUDIBLE-TACTILE PUSHBUTTONS AT THE MID-BLOCK CROSSING NEXT TO THE SUBURBAN TOWER APARTMENTS DRIVEWAY.
- AN EXISTING NEMA FULL-TRAFFIC-ACTUATED, EIGHT (8) PHASE CONTROLLER WITH ALL NECESSARY EQUIPMENT IN A NEMA SIZE "G" POLE MOUNTED CABINET SHALL BE UTILIZED AT THIS LOCATION. PUSHBUTTON CONTROLLER SHALL BE INSTALLED INTO THE EXISTING CABINET.

**III. SPECIAL NOTES**

APS WILL FUNCTION AS FOLLOWS:  
TO CROSS MD 390 (16TH STREET)

- WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON, THE PUSHBUTTON UNIT WILL ANNOUNCE THE FOLLOWING MESSAGE: "YELLOW FLASHING LIGHTS ACTIVATED FOR 16TH, WATCH FOR TRAFFIC. USE CAUTION." FOR THE DURATION OF THE FLASHER ACTIVATION.

**CONTACTS**

**DISTRICT (DISTRICT 3 - MONTGOMERY)**

MR. BRIAN YOUNG  
DISTRICT ENGINEER  
301-513-7311

MR. CEDRIC WARD  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
301-513-7498

MR. VICTOR GRAFTON  
DISTRICT UTILITY ENGINEER  
301-513-7350

MR. KEVIN NOWAK & MR. DUANE BERNARD  
ASSISTANT DISTRICT ENGINEER - CONSTRUCTION  
301-513-7336

MR. VERNON STINNETT  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
301-513-7304

**MONTGOMERY COUNTY DOT**

MR. KAMAL HAMUD  
TRAFFIC ENGINEER  
240-777-8761

MR. ROBERT RICKETTS  
SIGNAL SHOP  
301-279-1291

**OFFICE OF TRAFFIC AND SAFETY**

MR. RICHARD DAFF SR.  
CHIEF, TRAFFIC OPERATIONS  
410-787-7630

MR. ROBERT SNYDER  
ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS  
410-787-7630

MR. EDWARD RODENHIZER  
CHIEF, SIGNAL OPERATIONS SECTION  
410-787-7650

MR. EUGENE BAILEY  
CHIEF, SIGN OPERATIONS SECTION  
410-787-7670

MR. MICHAEL STOCKER  
SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE)  
410-787-7696

**EQUIPMENT LIST**

**A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION**

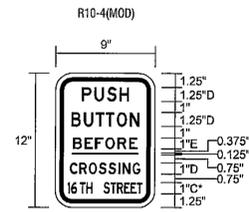
ITEM NO.	QUANTITY	DESCRIPTION
9570	43 SF	[UPDATED] SHEET ALUMINUM GROUND MOUNTED SIGN
	5 EA	W11-2 (30"x30")
	1 EA	W16-7pR (24"x12")
	1 EA	W16-7pL (24"x12")
	3 EA	W16-9p (24"x12")
9571	1 EA	"RIDE-ON" BUS STOP SIGN
	58 SF	[UPDATED] SHEET ALUMINUM MAST ARM / POLE MOUNTED SIGN
	2 EA	W11-2 (30"x30")
	1 EA	W16-7pR (24"x12")
	1 EA	W16-7pL (24"x12")
	2 EA	R10-4(MOD) (9"x12")
	1 EA	HIB WARNING SIGN (120"x48")

**B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR**

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EA	MAINTENANCE OF TRAFFIC
2001	10 CY	CLASS 2 EXCAVATION
2002	1 CY	TEST PIT EXCAVATION
5002	35 LF	5" HEAT APPLIED WHITE OR YELLOW PERMANENT PAVEMENT MARKINGS
5003	440 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS
5004	400 LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
6001	380 LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	655 SF	5 INCH CONCRETE SIDEWALK
6003	45 SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS
8009	1 EA	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8017	2 EA	LED SIGNAL HEAD MODULES (ANY SIZE)
8024	1 EA	REMOVE & DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
8037	50 LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-SLOTTED
8038	30 LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
8039	75 LF	WOOD SIGN SUPPORTS UP TO 4' X 6'
8040	101 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8042	80 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8046	1 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8053	860 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
NEG	2 EA	MODEL 'X' AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
NEG	1 EA	MODEL 'X' CONTROL UNIT

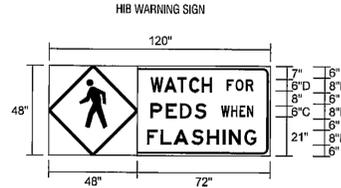
C. THE "RIDE-ON" BUS STOP SIGN SHALL BE RETURNED TO SHA. SHA WILL SUPPLY SIGN WITH NEW MOUNTING HARDWARE TO BE RELOCATED TO THE NEW POST AS DETAILED. ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE SIGNAL MODIFICATIONS.

**SIGN DETAILS**



SIZE	AREA	0.75 SF
WIDTH	9"	
HEIGHT	12"	
CORNER RADIUS	1.5"	

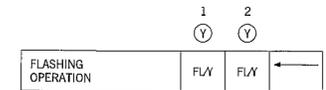
\* SIGN DIMENSIONS AND DETAILS SHOWN FOR REFERENCE ONLY. SEE ERIC RAUSER (TEDD) FOR SIGN FABRICATION DETAILS.



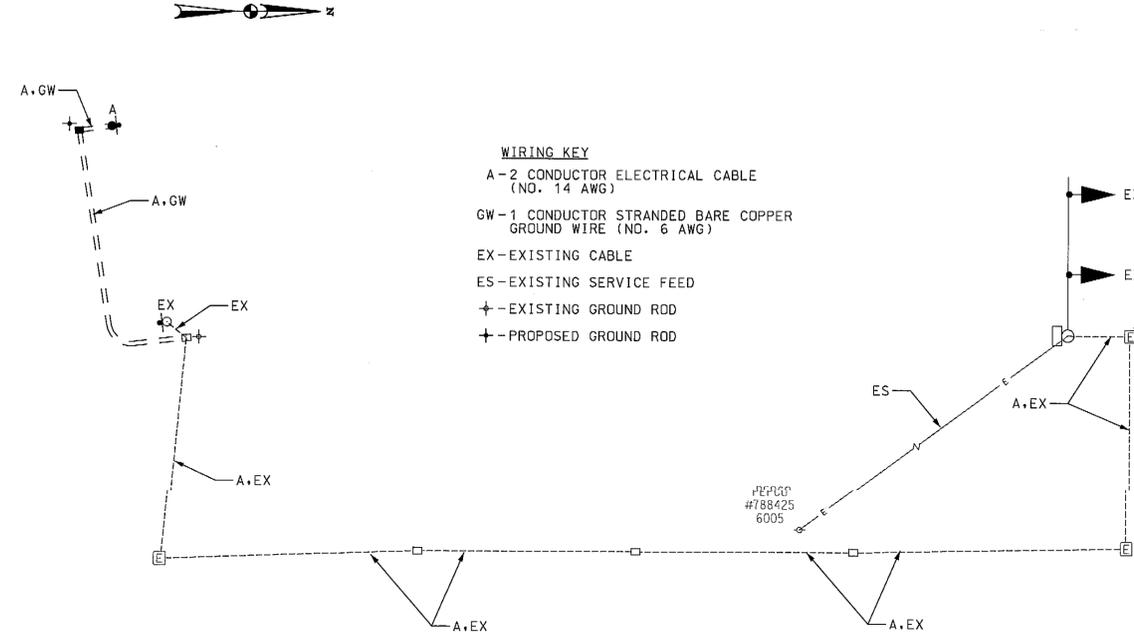
SIZE	AREA	40 SF
WIDTH	10'	
HEIGHT	4'	

\* SIGN DIMENSIONS AND DETAILS SHOWN FOR REFERENCE ONLY. SEE ERIC RAUSER (TEDD) FOR SIGN FABRICATION DETAILS.

**PHASE CHART**



**WIRING DIAGRAM**



**WIRING KEY**

- A-2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- GW-1 CONDUCTOR STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
- EX-EXISTING CABLE
- ES-EXISTING SERVICE FEED
- + -EXISTING GROUND ROD
- + -PROPOSED GROUND ROD

TOD NO: XY224-05  
SHA NO: MQ145B51  
MD 390 @ Suburban Tower Apartments

**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
**MD 390 AT SUBURBAN TOWER APTS.**  
PEDESTRIAN PUSHBUTTON MODIFICATION  
SILVER SPRING, MD

**PARSONS BRINCKERHOFF**  
100 S. Charles Street  
Tower 1, 10th Floor  
Baltimore, MD 21201  
(Ph) 410-787-5050 / (Fax) 410-727-4608  
<http://www.pbworld.com>

**SIGNALIZATION PLAN SHEET**

SCALE: \_\_\_\_\_ N.T.S. DATE: MARCH 1, 2012 CONTRACT NO. XY2245185

DESIGNED BY: M. FUKUJI COUNTY: MONTGOMERY  
DRAWN BY: M. FUKUJI LOGMILE: 15039000.55  
CHECKED BY: K. PERMISSOHN TMS NO.: K124  
F.A.P. NO. \_\_\_\_\_ TOD NO. \_\_\_\_\_

TS NO. 4130A-GI DRAWING **SG-03** OF 03 SHEET NO. 03 OF 03